

No. 20662

United States
COURT OF APPEALS
for the Ninth Circuit

DDELOH BROTHERS SWEED MILLS,
INC., et al., *Appellants,*
v.

DE MANUFACTURING COMPANY,
a Corporation, *Appellee,*
and

DE MANUFACTURING COMPANY,
a Corporation, *Appellee and Cross-Appellant,*
v.

DDELOH BROTHERS SWEED MILLS,
INC., et al., *Appellants and Cross-Appellees.*

*Appeal from the United States District Court for the
District of Oregon—Civil No. 9702 (Judge Solomon)*

OPENING BRIEF OF CROSS APPELLANT AND APPELLEE

CKHORN, BLORE, KLARQUIST & SPARKMAN,
NNETH S. KLARQUIST,
703 Board of Trade Building, Portland, Oregon 97204,
RAUSE, LINDSAY & NAHSTOLL,
INTHER F. KRAUSE,
9th Floor Loyalty Building, Portland, Oregon 97204,
FFMANN AND YOUNT,
MES T. HOFFMANN,
1111Leader Building, Cleveland, Ohio 44114,

Attorneys for Appellant and Cross Appellee

FILED

STEVENS-NESS LAW PUB. CO., PORTLAND, OR

2-66

MAR 2 1966

FEB 14 1967
WM. B. LUCK, CLERK



SUBJECT INDEX

	Page
risdiction	1
Jurisdiction of the District Court.....	2
Jurisdiction of the Court of Appeals	2
atement of the Case	3
Parties and Origin of Action.....	3
Feeding of Veneer Dryers Before and After Parker Invention	4
Problems Peculiar to Feeding Veneer.....	7
Development of Accused Apparatus.....	8
Nature of Invention	8
Comparison of Accused and Patented Apparatus	12
How Preferred Embodiment of Parker Operates..	14
How an Alternative Embodiment of Parker Operates	16
How Accused Apparatus Operates	18
Action Subsequent to Remand	19
oss Appellant's Specification of Errors.....	26
mmary of Argument	27
gument — Infringement	29
Question Properly Before This Court	29
Claim 3 Is Infringed	29
Language in Patent Interpreted by Under-standing of Person Skilled in Art	31
Accused Apparatus Has Full Equivalent of Parker Conveyor Type Table	36
Doctrine of Equivalents	37
Applying the Law to Case at Bar	42
Claims 5 and 7 Are Infringed	43
gument — Damages	43
Interest on Damages	50
Defendants' Infringement Was Wilful and Plaintiff Should Be Awarded Exemplary Damages and Attorney's Fees	55

SUBJECT INDEX (Cont.)

	Page
Conclusion	57
Certificate of Counsel	58
Table of Exhibits	59
Simplified Drawings of Parker and Accused Apparatus	Appendix

TABLE OF AUTHORITIES

	Page
CASES	

Aro Mfg. Co. v. Convertible Top Replacement Co., 377 U.S. 476, 141 USPQ 681 (1964).....	44
B. F. Goodrich Co. v. Consolidated Rubber Tire Co., 251 F. 617, 624 (C.C.A. 7, 1918).....	55
Cincinnati Car Co. v. New York Rapid Transit Corp., 66 F.2d 592 (C.C.A. 2, 1933).....	53
Cutter Laboratories, Inc. v. Lyophile-Cryochem Corp., 179 F.2d 80, 84 USPQ 54 (C.A. 9, 1949)....	38
Dean Rubber Mfg. Co. v. Killian, 106 F.2d 316, 42 USPQ 493 (C.A. 8, 1939).....	36
Del Francia v. Stanthony Corp., 278 F.2d 745, 125 USPQ 382 (C.A. 9, 1960).....	29
E. H. Bardes Range & Foundry Co. v. American Engineering Co., 109 F.2d 696, 44 USPQ 630 (C.A. 6, 1940)	40
Graver Tank & Mfg. Co. v. Linde Air Products Co., 339 U.S. 605, 607-608, 85 USPQ 328 (1950) ..	37
Hansen v. Colliver, et al, 282 F.2d 66, 127 USPQ 32 (C.A. 9, 1960)	29, 41, 42
Hartford National Bank v. E. P. Drew & Co., Inc., 188 F. Supp. 353, 126 USPQ 487 (D.C. Del., 1960); aff'd. 290 F.2d 589	48
Hartford National Bank v. E. P. Drew & Co., Inc., 188 F. Supp. 347, 127 USPQ 243 (D.C. Del., 1960); aff'd. 290 F.2d 589	54
Kemart Corp. v. Printing Arts Research Laborator- ies, Inc., 201 F.2d 624, 96 USPQ 159 (C.A. 9, 1953)	29
Munising Paper Co., Ltd. v. American Sulphite Pulp Co., 228 F. 700, 708 (C.C.A. 6, 1915).....	54

III 47-49) by Judge Gus J. Solomon, sitting without a jury, in the District Court for the District of Oregon, in a patent infringement action, holding claims 3, 5 and 7 not infringed, and claim 17 infringed; awarding Cross Appellant, Coe Manufacturing Company, plaintiff, below, damages in the sum of \$146,850 with interest at the rate of 6% per annum from August 16, 1965 based upon a royalty of \$825 for each infringing apparatus manufactured and sold by defendants; disallowing plaintiff's request for treble damages and attorney fees; and dismissing defendants' counterclaim for a declaratory judgment of invalidity and noninfringement.

Jurisdiction of the District Court

The jurisdiction of the District Court was invoked under 35 U.S.C.A. Sec 281 and 28 U.S.C.A. 1338 (a).

Jurisdiction of the Court of Appeals

The District Court entered final judgment October 6, 1965 (Tr. Vol. III 48-49). Appellants Jeddeloh Brothers Sweed Mills, Inc., et al., defendants below, filed on October 14, 1965, a notice of appeal to this Court (Tr. Vol. III 50). Coe Manufacturing Company, plaintiff below, filed on October 19, 1965 a notice of cross appeal to this Court (Tr. Vol. III 54). Both notices were filed within the time permitted by 28 U.S.C.A. Sec. 2107.

This Court has jurisdiction of the appeal by virtue of 28 U.S.C.A. Secs. 1291 and 1294 (1).

STATEMENT OF THE CASE

Parties and Origin of Action

(Findings of Fact II-XI)²

This case comes before this Court for the second time.

Coe Manufacturing Company, owner of the patent in suit and plaintiff in the District Court, hereinafter referred to as "plaintiff" or "Coe," is a corporation which has for many years been engaged in the manufacture of machinery for the plywood, plasterboard and related industries. Jeddelloh Bros. Sweed Mills, Inc., is a corporation which starting in 1955 has been engaged in the operation of a machine shop, the manufacture of machinery for small sawmills, and since about November 1957 the manufacture of apparatus for feeding veneers into dryers. Otto Jeddelloh and Fred Jeddelloh are officers and major stockholders of the corporation. Jeddelloh Bros. Sweed Mills, Inc., Otto Jeddelloh and Fred Jeddelloh, defendants in the district court, will be hereinafter referred to collectively as "defendants" or "Jeddellohs."

In March 1958, Coe sued Jeddellohs for infringement of original Parker Patent 2,649,182. After institution of the suit, Coe filed an application for reissue of the Parker patent, and on April 21, 1959, the Parker patent was surrendered and reissued as Re. 24,638. Following the reissue, Coe filed a supplemental complaint substituting the reissue for the original patent. Jeddellohs

² Most important of the findings of facts on this subject.

answered, denying infringement and validity of the patent and counterclaiming for judgment of invalidity.

The charge of infringement is limited to claims 3, 5, 7, and 17 which were carried over to the reissue patent from the original patent without change (Tr. Vol. I 257).

On April 20, 1960, after trial without a jury, the District Court held claims 3, 5, 7 and 17 of Parker Patent Re 24,638 not infringed and dismissed the complaint and counterclaim without passing on the validity of the patent (Tr. Vol. I 44-45).

Both parties appealed. On July 29, 1962, this Court vacated the judgment of the District Court and remanded the action to the District Court to determine the question of the validity of the Parker patent, redetermine the question of infringement of claims 3, 5, 7 and 17 and make findings of fact and conclusions of law (Tr. Vol. I 4).

This appeal and cross appeal is from judgments previously referred to, entered May 21, 1965, and October 6, 1965, subsequent to the remand.

*Feeding of Veneer Dryers Before
and After Parker Invention*

(Findings of Fact XIII-XV, XVII)

The patent in suit relates to an apparatus for the feeding of stacked veneer into dryers. Thin veneer as it is cut or peeled from a log contains a considerable amount of moisture which must be removed before the veneer can be successfully glued together to form

plywood panels. It is the practice in the industry to dry this wet or "green" veneer by passing it through long heated chambers called dryers. The veneer dryers conventionally utilized are about 14 feet wide and have a number, usually four to six, of vertically spaced sets or decks of rolls upon which the veneer is carried through the dryers.

Heated air is circulated by blowers through the dryers so as to evaporate the moisture from the veneer and reduce it to a relatively dry state. Most efficient drying conditions are obtained when the sheets of veneer being dried are substantially edge to edge and end to end so that in effect each deck of the dryer is one continuous sheet of veneer, being continuously formed at one end and disassembled when dry at the other end of the dryer. In almost every plywood plant the dryer is the "bottleneck" of the plant, and the output of the dryer controls the output of the plant. It is important therefore that the dryer be fed uninterruptedly to operate with utmost efficiency.

The veneer is peeled from a log in long strips which are subsequently cut into sheets or panels of desired size and stacked one upon the other for conveyance to the dryer. Different pieces of veneer will require different drying times, etc., depending upon such variables as thickness, moisture content, species of wood, and the like. Different pieces of veneer peeled from a single log will also require different drying conditions, depending upon their position within the log, for example, heart and sap wood. Because of this, the sheets of veneer are

piled into stacks of like drying quality and stored until a large quantity requiring similar drying conditions is accumulated. At that time the stacks to be dried are moved to the dryer for loading therein (Tr. Vol. I 261-262).

Prior to Parker's invention stacks of veneer were placed in front of the dryer with sufficient space between the stacks and the dryer for a number of workmen to operate. The individual sheets or strips of veneer were pulled manually by the workmen from such stacks of veneer and lifted and pushed on and into the individual decks of the dryer. This manual method of feeding dryers has numerous disadvantages, it requires a number of men to pull the veneer from the stacks and push it onto the dryer decks and is therefore expensive, the men frequently are unable to keep the dryer full resulting in decreased efficiency and production of the dryer, and the manual handling of the veneer results in considerable breakage and damage.

Coe has for many years been supplying the plywood industry with veneer dryers, veneer lathes or peelers, veneer clippers, conveyors, etc. Coe has also for many years been manufacturing dryers, conveyors and other apparatus for the plasterboard and other board industries. Because of this Coe was early aware of the need for a less costly and better method of feeding veneer into dryers.

Beginning in the 1930's Coe studied the problem of feeding veneer mechanically and attempted to design apparatus for that purpose. Several unsuccessful devices

were constructed and tested in its shops in Painesville, Ohio. In 1939 and 1940 Coe built three mechanical veneer feeders and installed them in mills in the Northwest. After diligent but unsuccessful efforts to make them work Coe was compelled to scrap them (Tr. Vol. I 306.

Problems Peculiar to Feeding Veneer

(Findings of Facts XVI, XX-XXIII, XXVII, XXIX, XXXI)

As Thomas Miles, a consulting engineer with wide experience in the plywood industry (Tr. Vol. I, 59-60) testified, "veneer is unlike many other materials that have been encountered in industry, and it is not a manufactured product. It is a forest product. Plasterboard, paper, sheetmetal and things, all those various materials, are of a known size, thickness, flatness, flexibility, and all the other characteristics of the materials are known and the products. In the case of plywood, it is relatively light and relatively thin. It constitutes in its green form, approximately half of its weight is water. It has a tendency to curl, and it is widely varying in any given load that is fed into a dryer..... They can vary all the way from 12 inches wide in each individual piece up to 50 inches wide....." (Tr. Vol. I 62-63).

Because of the peculiar characteristics of veneer and the failure of past efforts to feed veneer mechanically there was a fast conviction in the plywood industry at the time Parker made his invention that a veneer dryer could not be fed mechanically. When the first apparatus

built by Coe in accordance with the Parker patent was shipped to Oregon in 1948, Coe could find no plywood mill operator willing to permit its installation for testing even at no cost to the mill. Not until 1952, four years later, did Coe find anyone willing to have the apparatus tested in their mill and then only in a new plywood mill having an extra dryer not required for its normal operation (Tr. Vol. I 307-313).

Until 1958 all of the mechanical veneer dryer feeders used in the industry were manufactured by Coe or under license from Coe. Coe having secured the industry's acceptance of mechanical feeders, from January 1958 until the time of trial 10 December 1959 defendants were able to manufacture and sell about 100 feeders. The use of mechanical feeders has decreased labor costs while at the same time enabling more efficient handling of dryers thereby effectively increasing the capacity and drying efficiency of the dryers. As a result of this, at the time of the trial nearly every mill was using one or more mechanical feeders, and hand feeding has been virtually eliminated.

Development of Accused Apparatus

(Finding of Facts XXIV, XXV)

Prior to October 1957, Robert Blacketor, manager of Custom Plywood Company of Grants Pass, Oregon, had studied the Coe feeder as well as two different feeders built under license from Coe (DX 142, p. 10). In September or October 1957 he requested the Jeddellohs to build a mechanical feeder for his mill. The Jeddollohs ex-

amined the Coe feeder and the two feeders built under license from Coe, and built the first of the accused feeding apparatuses in about two months. The first Jeddelloh apparatus was installed in Custom Plywood Company's plant about January 1, 1958. Coe learned of the Jeddelloh apparatus about the time it was placed in operation, and by letter dated February 26, 1958, Coe informed Jeddelohs of its belief that their feeder infringed the Parker patent, and they were asked to cease infringing. In ensuing conversations with representatives of Coe, defendants indicated their refusal to discontinue the manufacture of their feeder. Whereupon, the complaint in the present action was filed.

Nature of Invention

(Finding of Facts XVII, XIX, XXX, XXXI)

Clarence E. Parker, the patentee, now deceased, was Design Engineer for Coe for many years and was thoroughly familiar with all of the equipment and operations employed in the plywood industry and in 1948 conceived his invention by which the stacks of veneer are placed in a row in front of the dryer with an operator positioned behind the stack. From this position, an operator simply pushes forward one by one the top sheets of veneer. The sheets are then grasped by nip or pinch rolls and propelled into their proper deck of the dryer, in closely spaced relation to the previously loaded veneer. This type of feeding requires that the top of the stacks be in substantial alignment with the bite of the pinch rolls into which the forward ends of the veneer are pushed by the operator.

Parker stated the objects of his invention as follows:

"The present invention relates to materials handling apparatus of the feeder type and, more particularly, to apparatus for feeding veneer to a multiple deck conveyor type veneer dryer from a stack of veneer.

"The principal object of the invention is the provision of a simple, inexpensive and reliable apparatus for feeding veneer from a stack of veneer to a multiple deck conveyor type veneer dryer with minimum effort on the part of an operator.

"A more specific object of the invention is the provision of a novel and improved apparatus for feeding veneer from a stack of veneer to a multiple deck conveyor type veneer dryer in predetermined relation upon the top piece of a stack of veneer being pushed forwardly of the stack proper a small amount by an operator."

The drawings of the patent in suit (Tr. Vol II 332-346) show two embodiments of the invention, one being shown in Figures 1 to 8 and the other in Figure 9. The radical difference in appearance between these two devices serves to illustrate the diversity of apparatus in which the invention can be incorporated.

The Parker patent is a combination patent. Coe agrees that one may go to the prior art and find each of the elements of the apparatus shown in the patent. There is nothing, however, in the prior art showing the combination arranged by Parker and set forth in the claims in suit.

As to these matters the District Court found in part as follows:

XXX

"The patent claims here in issue cover new combinations of elements which cooperate to produce a new and beneficial result, and this invention was not obvious to one skilled in the art.

XXXI

"Although each element of the patent in suit is old in the art, in combination they achieved a new result which enabled only one operator to feed sheets of veneer from stacks to various decks of a dryer with greater ease and less breakage and with much less manpower and expense. It was something more than a mere advance in the efficiency or utility of a machine; it was a new method of feeding sheets of green and wet veneer into a dryer.

XXXII

"In support of their allegations of lack of invention, defendants cited 22 prior patents in their answer and in their contentions in the pre-trial order; after remand defendants have relied primarily on three patents: Streeter 1,809,450, Campbell 1,216,773, and Cross 640,368. Streeter relates to fibreboard and was noted and considered by the Patent Examiner in the application for the Parker reissue patent. Cross and Campbell relate to tinplate and paper.

XXXIII

"Consideration of the cited prior patents and the evidence reveals that:

1. No apparatus constructed in accordance with these prior patents was capable of handling sheets of green veneer;
2. None of such patents, with the exception of

Moore (owned by plaintiff), even claimed to relate to the art of feeding veneer, and an apparatus built in accordance with Moore was incapable of handling veneer;

3. To create an apparatus capable of handling veneer similar to the patent in suit would have required substantial changes not suggested in any prior patent, and no such patent would have suggested the idea patented in Parker to a person skilled in the art; neither did any of these prior patents contain directions for practicing the Parker invention.

XXXIV

"There was a substantial, long-standing need for a mechanical veneer dryer feeder. Plaintiff with well-qualified and experienced personnel in the sheet material handling field spent many years trying to develop a successful feeder. No others were independently successful in developing such a feeder. When finally installed and tried by one of plaintiff's customers, plaintiff's feeders were an immediate commercial success."

Comparison of Accused and Patented Apparatus

(Findings of Fact XIX, XXVI)

Simplified sketches of the Parker apparatus shown in Figs. 1 to 8 and the Jeddelloh apparatus appear at the end of the brief.

In Parker the stacks of veneer to be loaded are stationary. The infeed rolls are elevatable and stack-to-roll alignment is maintained by raising or lowering the infeed rolls so that a workman standing behind the stacks needs only to push the leading ends of the top sheets of

veneer into ready or loading position between the infeed rolls while they are open. The infeed rolls are approximately 14 feet long and veneer is pushed from the several stacks by the operator standing behind the rolls into loading position over the entire length of the rolls. When the infeed rolls are fully loaded, they close upon the ends of the sheets of veneer to pull the veneer from the stacks and with the assistance of belts, encircling and driven by the lower outfeed pinch roll propel it over the table to outfeed rolls, which direct the veneer into one of the dryer decks. The outfeed rolls are moved from deck to deck in sequence.

In Jeddelloh, see sketch at end of brief, the infeed rolls are stationary, and the stacks of veneer are placed on an elevatable platform, which is raised and lowered to maintain stack-to-roll alignment. Veneer is pushed from the stacks into the infeed rolls in the same manner as in Parker. With the load ready the infeed rolls close and propel the veneer over the table to the outfeed rolls which in turn propel the veneer into one of the dryer decks. The outfeed rolls index from deck to deck.

The embodiment of the patented invention shown in Figs. 1 to 8 of the drawings and the Jeddelloh apparatus operate in accordance with identical principles. In both, the sheets of veneer forming the top layer of a stack are pushed, by an operator working behind the stack, forward a short distance into a ready position between separated pinch or nip rolls. The rolls then close and pull the veneer from the top of the stack and feed it to the outfeed pinch rolls, which in turn push the veneer into

the dryer. The set of outfeed pinch rolls is indexed from one deck to another to feed the decks successively.

Both apparatuses have tables interposed between the feed rolls and the outfeed rolls for supporting and directing the veneer in its travel from the infeed to the outfeed rolls. The table of the embodiment shown in Figs. 1 to 8 of the patent has belts looped about and driven by the bottom outfeed roll. If veneer longer than the distance between the pairs of infeed and outfeed rolls is being fed, the sheet of veneer is always in the nip of one or the other pair of rolls and propelled thereby at all times. This same is true in Jeddelloh. If the veneer is shorter than the distance between the rolls, in Parker it is supported and carried by the belts on the table for the short interval between the time the trailing end of the veneer leaves the infeed rolls and the leading end of the veneer enters the outfeed rolls; in Jeddelloh, the veneer slides across and is supported and carried by the table from the time it leaves the infeed rolls until it enters the nip of the outfeed rolls.

Both apparatuses have tables for performing the same functions. In both devices, the tables are provided for supporting and directing the veneer in its travel from the infeed to the outfeed rolls.

How Preferred Embodiment of Parker Operates
(Findings of Fact XIX)

As previously mentioned the Parker patent shows two embodiments of the invention, one being shown in Figs. 1-8 of the patent and the other in Fig. 9. A more

detailed description of these embodiments than given heretofore may be helpful to a complete understanding of the Parker patent.

The embodiment of Figs. 1-8 (see Tr. Vol. II 332-333) has a normally open pair of driven infeed pinch rolls, 34, 35, between which the leading ends of the top layer of veneer to be fed into the dryer are pushed by the operator from a row of stacks B, positioned in front of the rolls. The upper roll 35 is movable up and down, so that a row or layer of veneer may be pushed between the rolls when the upper roll is raised. A retractable stop 36 is provided to align the leading ends of the veneer. In timed relation to the operation of the dryer, periodically, the stop 36 is raised and roll 35 lowered so as to cause the veneer to be grasped between rolls 34, 35, and thereby drawn from the stacks and propelled toward the dryer. The infeed rolls 34, 35, are movable vertically as a unit, so that, as veneer is removed from the stacks and the height thereby lowered, the rolls may be lowered by the operator to maintain the nip of the rolls substantially in alignment with the top of the stacks. A motor 100 and suitable controls are provided for this purpose.

The infeed rolls 34, 35, propel the veneer toward a set of driven outfeed rolls 122, 35'. The latter rolls are automatically moved vertically as a unit stepwise past the decks of the dryer so as to feed the veneer into the various decks. To support the veneer between the infeed and the outfeed rolls there is a table D having moving belts 120 encircling the same and the lower outfeed pinch

the dryer. The set of outfeed pinch rolls is indexed from one deck to another to feed the decks successively.

Both apparatuses have tables interposed between the feed rolls and the outfield rolls for supporting and directing the veneer in its travel from the infeed to the outfeed rolls. The table of the embodiment shown in Figs. 1 to 8 of the patent has belts looped about and driven by the bottom outfeed roll. If veneer longer than the distance between the pairs of infeed and outfeed rolls is being fed, the sheet of veneer is always in the nip of one or the other pair of rolls and propelled thereby at all times. This same is true in Jeddelloh. If the veneer is shorter than the distance between the rolls, in Parker it is supported and carried by the belts on the table for the short interval between the time the trailing end of the veneer leaves the infeed rolls and the leading end of the veneer enters the outfeed rolls; in Jeddelloh, the veneer slides across and is supported and carried by the table from the time it leaves the infeed rolls until it enters the nip of the outfeed rolls.

Both apparatuses have tables for performing the same functions. In both devices, the tables are provided for supporting and directing the veneer in its travel from the infeed to the outfeed rolls.

How Preferred Embodiment of Parker Operates
(Findings of Fact XIX)

As previously mentioned the Parker patent shows two embodiments of the invention, one being shown in Figs. 1-8 of the patent and the other in Fig. 9. A more

detailed description of these embodiments than given heretofore may be helpful to a complete understanding of the Parker patent.

The embodiment of Figs. 1-8 (see Tr. Vol. II 332-333) has a normally open pair of driven infeed pinch rolls, 34, 35, between which the leading ends of the top layer of veneer to be fed into the dryer are pushed by the operator from a row of stacks B, positioned in front of the rolls. The upper roll 35 is movable up and down, so that a row or layer of veneer may be pushed between the rolls when the upper roll is raised. A retractable stop 36 is provided to align the leading ends of the veneer. In timed relation to the operation of the dryer, periodically, the stop 36 is raised and roll 35 lowered so as to cause the veneer to be grasped between rolls 34, 35, and thereby drawn from the stacks and propelled toward the dryer. The infeed rolls 34, 35, are movable vertically as a unit, so that, as veneer is removed from the stacks and the height thereby lowered, the rolls may be lowered by the operator to maintain the nip of the rolls substantially in alignment with the top of the stacks. A motor 100 and suitable controls are provided for this purpose.

The infeed rolls 34, 35, propel the veneer toward a set of driven outfeed rolls 122, 35'. The latter rolls are automatically moved vertically as a unit stepwise past the decks of the dryer so as to feed the veneer into the various decks. To support the veneer between the infeed and the outfeed rolls there is a table D having moving belts 120 encircling the same and the lower outfeed pinch

roll 122. If the veneer being fed is of greater length than the distance between the infeed and outfeed rolls, the table serves only to support and direct the veneer, the power for the forward movement being furnished by the rolls. If the veneer is shorter than the distance between the infeed and outfeed rolls, only the outfeed rolls through the belts driven thereby provide the motive power for the veneer during the short interval between the time the trailing end of the veneer leaves the infeed rolls 34, 35, and the time the leading end engages in the outfeed rolls 122, 35'. The opening and closing of the infeed rolls 34, 35 and the indexing of the outfeed rolls 122, 35' past the dryer decks are all in timed relation to the speed of the dryer.

In summary, with the infeed rolls 34, 35 open, the operator pushes the top sheets on the stacks forward a small distance into ready position with their leading ends between the rolls. At the proper moment, the rolls 34, 35 automatically come together and propel the ready layer of veneer across the table D to the outfeed rolls 122, 35', which in turn propel the veneer into a deck of the dryer in close proximity to the previously loaded veneer. At the proper times the outfeed rolls 122, 35' index to the next deck to be loaded and the infeed rolls 34, 35 open to accept a new load.

How an Alternative Embodiment of Parker Operates
(Findings of Fact XIX)

In the embodiment of the invention shown in Fig. 9 (Tr. Vol. II 338) of Parker, an elevator 350 is provided

in front of the dryer and upon which elevator is mounted an assembly, including a supporting frame and a pair of pinch rolls 34, 35 which are similar to the infeed rolls 34, 35 of the embodiment previously described and which rolls are periodically opened and closed in timed relation to the speed of the dryer. The stacks B of veneer to be fed are positioned on the elevator in front of the roll assembly, and the top sheets of veneer are pushed by the operator between the open rolls 34, 35. The rolls 34, 35 are designed to be raised or lowered as a unit by the operator within the supporting frame so that they can be positioned in substantial alignment with the top of the stacks of veneer being fed. The elevator 350 is automatically raised and lowered stepwise past the decks of the dryer so as to bring the rolls 34, 35 sequentially in alignment with the various decks. It will be observed that this embodiment of the invention has no table of any type.

In brief, a load or layer of veneer having its leading end between the rolls 34, 35 is, upon the closing of the rolls, propelled into the aligned dryer deck into substantially abutting relation with the previously loaded veneer on such deck. At the proper time the elevator 350 is indexed to align the rolls 34, 35 with the next deck of the dryer to be loaded, and the rolls 34, 35 opened to receive another charge or load. The operator adjusts the height of the pinch rolls 34, 35 within their support frame. The elevation of the elevator is automatically adjusted so that the position of the rolls 34, 35 relative to the dryer decks is maintained and the sequential feeding will proceed in the desired manner.

How Accused Apparatus Operates

(Finding of Fact XXVI)

Describing the Jeddelloh apparatus in more detail with reference to PX 22A (Tr. Vol. II 349), it includes a pair of driven infeed pinch rolls 48, 72 and a pair of driven outfeed pinch rolls, 47, 71. The top infeed roll 72 raises or lowers in the same manner as in Parker to permit loading of veneer from stacks positioned in front of the operator. Jeddelloh also has a retractable stop 97 for aligning the ends of the veneer pushed between the infeed rolls 48, 72 which stop is automatically raised upon the closing of the infeed rolls and lowered upon the opening of the rolls. Between the infeed and outfeed rolls is a table 51 for the purpose of directing and supporting the veneer as it moves from the infeed to the outfeed rolls. Like the outfeed rolls of Parker's apparatus, the outfeed rolls of defendants' apparatus move up and down past the decks of the dryer so that the successive loads of veneer are discharged sequentially into the decks.

In order to maintain the top of the stacks in alignment with the infeed rolls 48, 72 Jeddellohs provides an elevatable platform 129 in front of the infeed rolls upon which the stacks of veneer to be fed to the dryers are positioned. The infeed rolls 48, 72 are fixed in elevation and as the stacks on the elevatable platform diminish in height, the platform is raised in order to keep the top of the stacks in alignment with the infeed rolls.

Action Subsequent to Remand

Upon remand defendants restricted their defenses and counterclaim to allegations that:

(a) Claims 3, 5, 7 and 17 are invalid as lacking invention.

(b) The reissue was improper and that if so, all claims of the Parker patent, including those claims carried over from the original patent without change, are invalid.

(c) The revisions to the application upon which the original Parker patent was granted concerning Fig. 9 were improper as involving new matter and thus removed the disclosure with respect to Fig. 9 from consideration in interpreting the scope of the claims.

(d) File wrapper estoppel limits the scope of claim 17.

(e) Defendants do not infringe claims 3, 5, 7 and 17.
(Finding of Fact XII, Tr. Vol. III 14)

The District Court made comprehensive findings on all of the issues.

The more important findings respecting the prior art and what Parker did to improve upon it are the following:

XIII

"It has been the practice in the Northwest plywood industry since about 1905 to cut or peel thin veneer from a log in long sheets which are thereafter cut into sheets or panels of irregular size and

stacked in piles according to size, grade and thickness. Such veneer contains large amounts of moisture which is removed prior to making the veneer into plywood by passing the veneer through long, heated dryers about fourteen feet wide and having four or more tiered conveyor decks upon which single thicknesses of the veneer are carried through the dryer.

XIV

"Before the invention of the patent in suit, stacks of veneer (usually three) were positioned side by side in front of a dryer and the veneer sheets were pulled off the stacks one at a time by the workmen, who stood between the stacks and the dryer, and lifted and pushed the veneer on and into the individual decks of the dryer. During the feeding of a dryer by hand, the sheets of veneer were sometimes broken or damaged and frequently the dryers were not kept completely full.

XV

"Plaintiff Coe has for many years been the leading manufacturer of equipment for plywood mills; these include dryers, veneer lathes and similar apparatus. It has also manufactured dryers, conveyors and other sheet-handling equipment for the plasterboard and fibreboard industry.

XVI

"Green or undried veneer sheets are dissimilar to manufactured products, such as plasterboard, paper and sheetmetal, in that they vary in quality, length, width, thickness, flexibility, and flatness. Green veneer has a tendency to curl. Because of all

of these characteristics, veneer is difficult to handle, particularly with mechanical apparatus.

XVII

"At least as early as 1936, plaintiff undertook to develop apparatus to mechanically feed veneer to dryers. From 1939 to 1941, plaintiff designed and constructed three different apparatuses for feeding veneer to a dryer. None of them performed satisfactorily, and all were scrapped after trial periods.

XVIII

"In 1948, C. E. Parker, now deceased, then a design engineer for plaintiff, developed the invention of the patent in suit.

XX

"Plaintiff in 1948 constructed a veneer dryer feeder apparatus in accordance with Figs. 1 to 8 of the patent in suit and shipped it to Portland, Oregon, for trial.

XXI

"From 1948 to 1952, plaintiff attempted to secure permission from a number of plywood plants to install the feeding apparatus which it had in Portland on a trial basis. Because of a general belief in the plywood industry that a mechanical veneer feeder could not successfully operate, plaintiff was unable to persuade any plant to try the feeder.

XXII

"In 1952, plaintiff secured permission to install its feeder on a trial basis in a new plywood plant having an extra veneer dryer not required for its

normal plant operation. The feeder performed satisfactorily, was purchased by such plant and was still in operation at the time of trial.

XXIII

"Between 1952 and the time of trial, about 105 Parker feeders built under the patent had been installed in plywood mills. A few of these were constructed under license from plaintiff, the balance by plaintiff.

XXVIII

"Parker's invention enables veneer to be fed to dryers with fewer men, with less damage to the veneer, and with more uniform loading of the dryer resulting in increased efficiency of the dryer.

XXIX

"Mechanical feeders have virtually eliminated hand feeding of veneer dryers, and plaintiff's invention is a commercial success."

The more important findings and conclusions of the District Court relative to the matter of infringement are the following:

XXXVII

"At the trial defendants conceded that the accused apparatus includes all of the elements of the combination patented in Claims 3, 5, 7, and 17 with the exception that defendants contend that they do not employ a conveyor type table between the in-feed and outfeed sets of pinch rolls of their accused apparatus or its equivalent and that the accused apparatus does not have a vertically movable in-feed end.

XXXVIII

"The preferred embodiment shown in Parker Reissue 24,638 contemplated the feeding of veneer of any length, including veneer shorter than the distance between the infeed and outfeed sets of pinch rolls. To move or carry sheets of veneer from the infeed to the outfeed sets of pinch rolls, the patent in suit employs a conveyor type table which is motivated by moving belts.

XXXIX

"Defendants' accused apparatus does not have a conveyor type table or its equivalent. It employs a stationary plate between the infeed and outfeed pinch rolls. The power to move sheets of veneer over and across the plate is supplied by the pinch rolls.

XL

"Defendants' apparatus does not have a conveyor type table or the equivalent thereof, and therefore does not infringe Claims 3, 5, and 7 of the patent in suit.

XLI

"An essential feature of the Parker apparatus and the accused apparatus is the maintenance of a roll-stack alignment at the infeed end.

XLII

"In the preferred embodiment of Parker, the infeed set of pinch rolls is elevatable, so that they could be raised to the level of full stacks and progressively lowered as the veneer was fed from the stacks. These rolls were designated generally by Parker as a part of a vertically movable assembly.

XLIII

"Parker also states that the infeed rolls could be positioned at some convenient height above the floor, thus contemplating stack adjustment to maintain the top layer of veneer level with the infeed rolls. This suggestion was followed by a Parker licensee who fixed the infeed rolls at a convenient height and put the stacks of veneer to be fed on an elevatable platform. Otto Jeddeloh examined such a licensed machine prior to designing the accused machine.

XLIV

"Every feeding apparatus manufactured by defendant is used with an elevatable platform upon which the stacks of veneer are positioned and elevated as the veneer is fed to maintain the top veneer sheets of the stack substantially aligned with the infeed set of pinch rolls, and these elevatable or scissor-like platforms are integral and essential parts of the accused feeding apparatus.

XLV

"Claim 17, which calls for a vertically movable feed means having an entering end and a discharge end, is generic to both embodiments of the Parker invention.

XLVI

"Both the Parker apparatus and the accused apparatus have vertically movable feed means, and each has an entering end and a discharge end.

XLVII

"The combination of elements in the accused ap-

paratus operates in the same manner as does the Parker invention as defined in Claim 17.

XLVIII

"The elevatable infeed pinch rolls of the Parker embodiments and the elevatable platform of the accused apparatus perform the same functions in substantially the same way to obtain the same result, that is, roll-stack alignment, and the accused apparatus is the full equivalent of the Parker invention as defined in Claim 17.

XLIX

"Defendants assert the defense of file wrapper estoppel limited to Claim 17. This claim was allowed in the form in which it was presented without rejection or amendment, and Parker did not disclaim a structure which he later covered.

'Based upon the foregoing findings of fact, the Court makes the following

CONCLUSIONS OF LAW

* * * * *

V

"Defendants' apparatus does not have a conveyor type table or the equivalent thereof, and therefore does not infringe Claims 3, 5, and 7 of the patent in suit.

VI

"The defense of file wrapper estoppel, limited to Claim 17, is denied.

VII

"The defendants have infringed Claim 17 of the Parker Reissue Patent Re 24,638."

CROSS APPELLANT'S SPECIFICATION OF ERRORS

1. There is no substantial evidence to support the court's finding (Finding of Fact XXXIX, Tr. Vol. III 22) that the accused apparatus does not have a conveyor type table or its equivalent and said finding is clearly erroneous.
2. The court erred in finding (Finding of Fact XL, Tr. Vol. III 22) that defendants' apparatus does not have a conveyor type table or the equivalent thereof and therefore does not infringe Claims 3, 5 and 7. Said finding is contrary to the great weight of all the evidence and is clearly erroneous.
3. The court erred in concluding (Conclusion of Law VI, Tr. Vol. III 25) that claims 3, 5 and 7 of the patent in suit are not infringed by defendants for the alleged reason that defendants' apparatus does not have a conveyor-type table or the equivalent thereof. The weight of the evidence and the law compel a contrary conclusion and said conclusion of the court is clearly erroneous.
4. The court erred in finding (Supplemental Finding of Fact LVII, Tr. Vol. III 46-47) that the licenses granted under Parker Patent No. 2,649,182 do not indicate general acquiescence in the reasonableness of the royalties paid and there is no established royalty rate under Parker Patent Re. 24,638. Said finding is against the clear weight of the evidence and is erroneous.

5. There is no substantial evidence to support the court's finding (Supplemental Finding of Fact LVIII, Tr. Vol. III 47) that \$825.00 for each of the veneer dryer feeders manufactured and sold by defendants is a reasonably royalty and adequately compensates plaintiff for the infringement and said finding is clearly erroneous.

6. The court erred in denying (Conclusions of Law X, XI, Tr. Vol. III 25, 26) plaintiff's claim for treble damages and attorney's fees.

7. The court erred in concluding (Supplemental Conclusion of Law B, Tr. Vol. III 47) that an award to plaintiff of \$146,850.00 as reasonable royalty was adequate to compensate plaintiff for the infringement complained of through and including June 30, 1965, and in allowing interest only from August 16, 1965.

SUMMARY OF ARGUMENT

1. Facts bearing on infringement are not in dispute, and the question of infringement is one of law reviewable by this court.

2. Defendants conceded that Claim 3 reads on the accused apparatus except that they contend that it has no conveyor type table. The table in the accused apparatus functions in a conveyor application and is therefore a conveyor type table, or in any event, the equivalent thereof.

3. The table in the accused apparatus has the functions of a conveyor table and is therefore a conveyor

type table or the equivalent. The court below found that Claims 5 and 7 read on the accused apparatus except that it does not have a conveyor type table or the equivalent thereof.

4. The licenses granted covered all companies manufacturing veneer feeders prior to the entry of defendants into the field and clearly establish that the royalties paid by the licensees were reasonable and constituted an established royalty rate under Parker Patent Re 24,638.

5. The awarded royalty of \$825.00 for each of the veneer feeders manufactured and sold by defendants is less than the royalty paid by licensees of plaintiff prior to defendants' entry into the manufacture of veneer feeders and is, therefore, not a reasonable royalty and does not adequately compensate plaintiff for defendants' infringement.

6. The court below concluded that interest should be allowed only from August 16, 1965, although defendants commenced the manufacture and sale of infringing apparatuses in November 1957 and, if royalties had been paid on the infringing feeders as they were manufactured and sold, plaintiff would have had the use of the royalty money from the dates of sale to August 16, 1965.

7. Defendants developed their infringing apparatus after observing the operation of plaintiff's patented feeder. Although they were immediately notified by plaintiff of their infringement, they continued the manufacture and sale of the infringing apparatus and even

continued the manufacture and sale after this court's opinion of June 29, 1962. The infringement was clearly wilful and the trial court's finding that plaintiff was not entitled to treble damages and attorney's fees was not supported by the evidence and clearly erroneous.

ARGUMENT—INFRINGEMENT

Question Properly Before This Court

The facts before this court are not in dispute. Defendants have admitted to the manufacture of the accused apparatus and the structure thereof, and its operation is not in dispute. In such a situation, this court has in numerous cases held that the question of infringement is purely one of law reviewable by this court. *Kemart Corporation v. Printing Arts Research Laboratories*, 201 F.2d 624, 96 U.S.P.Q. 159; *Del Francia v. Stanthony Corp.*, 278 F.2d 745, 125 U.S.P.Q. 382; *Hansen v. Col-liver*, 282 F.2d 66, 127 U.S.P.Q. 32.

Claim 3 is infringed

This claim was carried over from the original patent into the reissue without change.

It is admitted that Claim 3 reads on the accused apparatus except that defendants contend that their apparatus does not have a "conveyor type table." During the course of the trial, the court stated the problem in connection with Claim 3 as follows:

"Does the accused machine have a conveyor type table; that is the question here, or is the table that they have the full equivalent of a conveyor type table." (Tr. Vol. III 75-76)

The court concluded in its opinion (Tr. Vol. III 10) and found in the Findings of Fact XXXIX, XL (Tr. Vol. III 22) that the accused machine does not contain a "conveyor type table" or its equivalent. The court according to its opinion came to this conclusion "because it is the pinch rolls which provide the power to move sheets of veneer over and across the plate" (Tr. Vol. III 10). The court, in other words, came to the conclusion that to be a conveyor type table, the table must provide the power.

Plaintiffs' witness Miles under interrogation by the court testified in part as follows:

"THE COURT: That table at which Mr. Krause is sitting here, you would not regard that as a conveyor type table, would you?

THE WITNESS: Well, it could be made into one, I suppose, if you wanted to do it.

THE COURT: How would you do that?

THE WITNESS: By applying it as in a conveyor application in which you would use the table as a fundamental part of a regular operating mechanism in which material was being introduced at one end and pushed across and taken off at the other end.

THE COURT: In other words, if they had a mechanism where you are standing and one on the opposite side, one which would push and the other which would pull a piece of lumber, for example, you would then say that the table has been converted into a conveyor type table?

THE WITNESS: It is a conveyor, a part of the conveyor system.

THE COURT: You are not answering the ques-

tion. Why don't you answer the question, whether the table is a conveyor type table?

THE WITNESS: All right, then; it is a conveyor type table. Then it is a conveyor type table.

THE COURT: *I do not believe it, and I do not believe any dictionary definition would cover that either.* (Emphasis added.)

THE WITNESS: I would like to submit that there are a number of applications in transporting materials in the merchandise-handling field in which the conveyor type table, if you will, is merely a flat table. As in the case of Parker, actually there is a solid table just as there is in the case of Jeddelloh, but because of the length the belts have been added to carry it from one roll to the next." (Tr. Vol I 79, 80)

*Language in Patent Interpreted by
Understanding of Person Skilled in Art*

In determining what was meant by a conveyor type table, it was the trial court's duty to ascertain and be guided by what a person skilled in the art would understand by the words (35 U.S.C. 112). As was said in *Standard Duplicating Machine Co. v. American Business Machine Co.*, 174 F.2d 101, 81 USPQ 239 (C.A. 1, 1949):

"... patents are not to be read with the attention focused solely upon an unabridged dictionary and an English grammar. The purpose of a patent is to disclose the invention described therein to the public, that is, to that part of the public skilled in the art to which the patent appertains, *and hence they are to be read as those conversant with the art involved would read them.*" (Emphasis added)

It is conceded that the accused device contains a table and the Jeddelloh Patent 2,876,009 (Tr. Vol. II 592, col. 2, l. 13), so identifies that element. Obviously, the table in the accused device is placed there for a purpose. It is not there for the purpose of storing, sorting or examining material placed on it or that passes over it. Its only purpose is to participate in some way in conveying material from the infeed rolls to the outfeed rolls. For this same reason, a table was introduced into the plaintiff's feeder apparatus.

Claim 3 does not specify a conveyor table but rather a conveyor type table. It must be assumed that the draftsman included the word "type" advisedly. Had the draftsman intended to claim only a belt conveyor table, he would have so stated, but obviously claim was made to a conveyor table without specifying the type of propulsion to be used in passing the material over the table. The moving belts powered by the rolls are used in the Parker apparatus to facilitate the feeding of veneer shorter than the distance between the infeed and outfeed rolls. The usual lengths of veneer are from four to twelve feet plus three or four inches of trim (Tr. Vol. I 81). In the accused apparatus, the rolls are less than four feet apart, and therefore propulsion of the veneer across the table is provided by the moving rolls. The infeed rolls push the leading edge of the veneer over the table until gripped by the outfeed rolls. For a moment the veneer is in the grip of both sets of rolls. Thereafter, the veneer is drawn across the table by the outfeed rolls and discharged into the dryer.

Veneer is a thin, flexible material, and some of the sheets are warped, deformed or splintered (Tr. Vol. I 62, 63). The leading end will slide across and be directed by the table into the outfeed rolls, and the following or trailing end of the veneer after leaving the infeed rolls will slide along the table until it reaches the outfeed rolls (Tr. Vol. I 74-75, 119, 213).

In both the accused apparatus and in the apparatus shown in Figs. 1 to 8 in the patent in suit, some means are necessary to convey and direct or support the veneer or at least the leading and following ends of the veneer from the infeed to the outfeed rolls. Because Parker contemplated handling veneer of any length, including veneer that is shorter than the distance between the infeed and outfeed rolls, he showed in his preferred embodiment a table with a plurality of moving belts to propel such shorter veneer from the infeed to the outfeed rolls. Where longer sheets of veneer are handled, the sheets are propelled by the infeed and/or outfeed rolls at all times and the belts are not necessary (Tr. Vol. I 85-86). The accused apparatus is designed primarily to handle veneer longer than the distance between the infeed and outfeed rolls. Where the veneer is longer than the distance between the set of rolls, the propulsion of the veneer can be attained solely by the pushing of the infeed rolls and the pulling of the outfeed rolls; where it is shorter, it slides across the table from the infeed to the outfeed rolls. *In both the patented and in the accused apparatus, a table with characteristics of a conveyor table is necessary for reliable operation and to avoid damage to the veneer.*

Defendants' table has only one useful purpose, namely, to support, to convey, to carry, and to direct the veneer as it moves from the infeed to the outfeed rolls. Webster's Collegiate Dictionary, Fifth Edition; G. & C. Merriam Co. (1943) says that the word convey means "to bear from one place to another; carry; transport. . . . To serve as a medium or conduit for." Clearly, table 51 of the accused apparatus serves as a medium to bear, carry and/or transport the veneer from one place to another, namely, from the infeed to the outfeed rolls. It functions as a "conveyor type table."

Both plaintiff's witness, Miles, and defendants' witness, Schulein, testified that the thing which characterized a table as a conveyor or a conveyor type table was its use in a conveying situation (Miles, Tr. Vol. I 79; Schulein, Tr. Vol. I 212-3). They agreed that in conveyors the force to move an object may come from a moving element supporting the object or from some other source (Miles, Tr. Vol. I 80; Schulein, Tr. Vol. I 211). Schulein testified:

"I would say that if you have a level thing as you are talking about and you start something up with momentum and then you release your force from the thing that you are pushing and allow it to continue under its own momentum across that, then you have made a conveyor out of it because it is performing a conveying function." (Tr. Vol I 209)

It would seem that it would be logical to conclude you also have a conveyor if force is continually applied to the object being moved, and Schulein admitted that he had seen such conveyors:

"Q. You have seen conveyors, haven't you Mr. Schulein in which the power is continually being applied to the thing that is being conveyed?

A. Yes." (Tr. Vol. I 211)

In his patent specification, Jeddelloh stated that his apparatus would feed veneer of three-foot length, shorter than the distance between the infeed and outfeed rolls which he fixes at "slightly less than four feet" (Tr. Vol. II 591, Col. 2, lines 4-6). After the infeed rolls release the three-foot veneer, its momentum must carry it across the table, and, according to defendants' expert Schulein, it is a conveyor table.

The court specifically found that:

"The Jeddelloh apparatus is similar to the Parker embodiment shown in Figs. 1 to 8. Infeed and outfeed pinch rolls are provided, . . . A flat 'plate or table' extends from the infeed to the outfeed pinch rolls . . . The infeed pinch rolls push or feed the sheets forward over the plate or table and into outfeed pinch rolls whereupon the outfeed pinch rolls continue the feeding operation. . . ." (Finding of Fact XXVI, Tr. Vol. III 22)

In view of the testimony this is in substance a finding that the "plate or table" of the accused feeder is a "conveyor type table."

The testimony conclusively established that a table with conveyor belts is only one type of conveyor table and that any table over which products move regardless of the manner in which power is applied, is a conveyor type table. Miles so testified and no other conclusion

could be drawn from the testimony of defendants' expert Schulein. In view of this testimony and the admitted fact that defendants' table has *conveying functions*, the trial judge's finding that defendants' apparatus has no conveyor type table is without support and clearly erroneous.

We submit that the accused apparatus contains the exact structure called for in Claim 3.

Accused Apparatus Has Full Equivalent of Parker Conveyor Type Table

The court found that the accused apparatus did not have a conveyor type table or its "equivalent" (Finding of Fact XXXIX, XL, Tr. Vol. III 22). These findings compel us to discuss the doctrine of equivalents as applicable to this element. The evidence as heretofore shown is convincing that the invention of the patent is a "pioneer invention" as defined in *Dean Rubber Mfg. Co. v. Killian*, 106 F.2d 316, 319, 42 U.S.P.Q. 493, 497 (C.A. 8). As in that case, the record shows Parker was the first:

" . . . to produce a machine which successfully performed the function which had been formerly done by hand, and the mechanical performance of which had been long sought by the industry, and that the machine of the patent is, therefore, a pioneer invention . . . and even if regarded as no more than an improvement patent, it has demonstrated its worth and importance to such an extent as to entitle it to a broad range of equivalents approaching that of a pioneer invention. (*Eibel v. Paper Co.*, 261 U.S. 45-63)"

Doctrine of Equivalents

The criteria for the doctrine of equivalents was set forth most recently by the Supreme Court in *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605, 607-8, 85 U.S.P.Q. 328 (1950):

"In determining whether an accused device or composition infringes a valid patent, resort must be had in the first instance to the words of the claim. If accused matter falls clearly within the claim, infringement is made out and that is the end of it.

"But courts have also recognized that to permit imitation of a patented invention which does not copy every literal detail would be to convert the protection of the patent grant into a hollow and useless thing. Such a limitation would leave room for—indeed encourage—the unscrupulous copyist to make unimportant and insubstantial changes and substitutions in the patent which, though adding nothing, would be enough to take the copied matter outside the claim and hence outside the reach of the law. One who seeks to pirate an invention, like one who seeks to pirate a copyrighted book or play, may be expected to introduce minor variations to conceal and shelter the piracy. Outright and forthright duplication is a dull and very rare type of infringement. To prohibit no other would place the inventor at the mercy of verbalism and would be subordinating substance to form. It would deprive him of the benefit of his invention and would foster concealment rather than disclosure of inventions, which is one of the primary purposes of the patent system.

"The doctrine of equivalents evolved in response

to this experience. The essence of the doctrine is that one may not practice a fraud on a patent. Originating almost a century ago in the case of *Winans v. Denmead*, 15 How. 330, it has been consistently applied by this Court and the lower federal courts and continues today ready and available for utilization when the proper circumstances for its application arise. 'To temper unsparing logic and prevent an infringer from stealing the benefit of the invention' a patentee may invoke this doctrine to proceed against the producer of a device 'if it performs substantially the same function in substantially the same way to obtain the same result.' *Sanitary Refrigerator Co. v. Winters*, 280 U.S. 30, 42 (3 U.S.P.Q. 40, 44). The theory on which it is founded is that 'if two devices do the same work in substantially the same way, and accomplish substantially the same result, they are the same, even though they differ in name, form, or shape.' *Machine Co. v. Murphy*, 97 U.S. 120, 125. The doctrine operates not only in favor of the patentee of a pioneer or primary invention, but also for the patentee of a secondary invention consisting of a combination of old ingredients which produce new and useful results, *Imhaeuser v. Buerk*, 101 U.S. 647, 655, although the area of equivalence may vary under the circumstances. See *Continental Paper Co. v. Eastern Paper Bag Co.*, 210 U.S. 405, 414-415, and cases cited; *Seymour v. Osborne*, 11 Wall. 516, 556; *Gould v. Rees*, 15 Wall. 187, 192."

In *Cutter Laboratories, Inc. v. Lyophile-Cryochem Corp.*, 179 F.2d 80, 84 U.S.P.Q. 54 (C.A. 9, 1949), the defendant was charged with infringing a process patented for preserving biologically active substances, the

claims utilizing the terms "quick freezing" and "substantially instantaneous freezing." The patent described in the specification a process involving freezing at minus 70° C, and the alleged infringing process froze the materials at minus 20° C. The Court found the patent infringed because slower freezing at -20° C was the equivalent of quick freezing at -70° C, even though the infringing process did not use "quick freezing." The Court said:

"Appellant has merely replaced substantially instantaneous freezing with slower methods of freezing well known in the prior art. There is nothing to show that appellant achieves any substantially different or improved result by the slower method as compared with the results achieved by the Reichenel process. Appellant has used all the inventive elements of the claims and, in place of another element, quick freezing, used a substitute well known at the time of the invention, slower freezing. Cf. Pederson v. Dundon, 220 F. 309; Casier v. Mackie-Lovejoy Mfg. Co., 183 F. 654. It has been long established that such a substitution does not avoid infringement. Gill v. Wells, 89 U.S. 1, 15, 28-32.

"Appellant invokes the doctrine of Keystone Bridge Co. v. Phoenix Iron Co., 95 U.S. 274, that no limitation which a patentee puts into his claim may be ignored, whether or not the limitation was necessary to validate the claim. See also Fay v. Cordesman, 109 U.S. 408. One reason for this rule is to give notice to possible infringers of the claim's limits; another is to relieve the courts of the burden of deciding just what elements are material to the validity of the claim. But where attempts are

made to avoid infringement by relatively slight, well known variations in the claimed process or product, the strict rule is relaxed by the doctrine of equivalents. 'Without that doctrine every claim is indeed entitled to be interpreted in the light of the specifications as a whole, and not to be read merely with a dictionary. *But often even with the most sympathetic interpretation the claim cannot be made to cover an infringement which in fact steals the very heart of the invention;* no matter how auspiciously construed, the language forbids. *It is then that the doctrine of equivalents intervenes to disregard the theory that the claim measures the monopoly and ignores the claim in order to protect the real invention.* (citing cases)" (Emphasis added) (179 F.2d at 89, 84 U.S.P.Q. at 61)

In the case at bar as in the cited case, the defendants have stolen "the very heart of the invention."

In *E. H. Bardes Range and Foundry Co. v. American Engineering Co.*, 109 F.2d 696, 698, 44 U.S.P.Q. 630 (C.A. 6, 1940), the Court said:

"Except where form is of the essence of the invention, one device is an infringement of another 'if it performs substantially the same function in substantially the same way to obtain the same result,' *Machine Company v. Murphy*, 97 U.S. 120, 125, and mere colorable departures do not avoid infringement, *McCormick v. Talcott*, 20 How. 402, 405. A close copy which seeks to use the substance of the invention, and although showing some change in form and position, uses substantially the same device, performing precisely the same offices with no change in principle, constitutes an infringement.

Ives v. Hamilton, 92 U.S. 426, 430. Even where the invention must be restricted in view of the prior art to the form shown and described by the patentee and cannot be extended to embrace a new form which is a substantial departure therefrom, there is infringement where the departure is merely colorable. Duff v. Sterling Pump Co., 107 U.S. 636, 639; Sanitary Refrigerator Co. v. Winters, 280 U.S. 30, 41 (3 USPQ 40)."

In the case at bar, Jeddelloh uses "the substance of the invention, and although showing some change in form and position, uses substantially the same device, performing precisely the same offices with no change in principle." This constitutes an infringement.

The facts in *Hansen v. Colliver, et al.*, 282 F.2d 66, 127 U.S.P.Q. 32, decided by this Court on August 23, 1960, are substantially identical with those in the case at bar. In that instance, this Court held that a "table" functioning to keep a wire rope from slipping off a pin functioned as a "guide" and was an equivalent of the tubular sleeve structure shown in the patent and performing the same function.

As did the patentee in the last-cited case, Parker showed a preferred embodiment of his invention but pointed out in the concluding paragraph of the specification:

"While the preferred embodiment of the invention has been described with considerable detail, the invention is not limited to the particular construction shown and it is the intention to cover hereby all adaptations, modifications and uses

thereof which come within the practice of those skilled in the art to which the invention relates and the scope of the appended claims." (Tr. Vol. II 343, Col. 10, lines 10 to 22)

Applying the Law to Case at Bar

In the case at bar, defendants have appropriated Parker's concept of utilizing a table between the infeed and outfeed rolls which has the characteristics of a conveyor table. Both parties use pinch rolls for propulsion, but Parker added moving belts for more efficiently handling veneer shorter than the distance between the rolls. Both devices are identical in all respects except that Parker is especially designed to handle veneer shorter than the distance between the rolls. This Court has pointed out that infringement is not avoided merely by the selection of a less efficient mode of operation. *Stearns v. Tinker and Rasor*, 252 F.2d 589, 116 U.S.P.Q. 222 (C.A. 9). See also *Weiss v. R. Hoe & Co., Inc.*, 109 F.2d 722, 726, 44 U.S.P.Q. 412, 416 (C.A. 2), where the Court held "the fact that an infringer copies imperfectly and does not achieve the full result of the patent is not sufficient to prevent infringement where there has been substantial copying."

To paraphrase the conclusion expressed by this Court in *Hansen v. Colliver*, supra, the inventive idea was appropriated by the defendants and the end result achieved under Claim 3 and the defendants' device is the same. Defendants use a fixed plate or table in a conveyor situation and the power of the pinch rolls for moving the veneer over the same, thereby making the

plate a "conveyor type table" or the full equivalent thereof.

We submit that the accused apparatus if not containing the exact structure called for in Class 3 contains the equivalent thereof.

Claims 5 and 7 are infringed

These claims (Tr. Vol. II 344) were carried over from the original patent into the reissue without change.

The Court found that the accused apparatus includes all of the elements called for in Claims 5 and 7 with the exception of a "conveyor type table or its equivalent." The error of the Court concerning the "conveyor type table" has been fully discussed above under Claim 3 (Brief p. 29-42).

It is clear that defendants' apparatus infringes Claims 5 and 7, under the decisions of this Court referred to above. The finding of the trial court to the contrary was not supported by any evidence and was clearly erroneous.

ARGUMENT — DAMAGES

Patent infringement is a tort and in considering the damages due a patent owner against whom the tort has been committed, the same consideration should be given as is given in the award of damages in any other tort case. That is to say, the damages awarded ought to be sufficient to compensate the injured party for the injuries sustained by reason of the tort. The Patent Act so provides:

Sec. 284

"Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer. . . ."

In its latest consideration of the question of damages, the United States Supreme Court in *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 141 USPQ 681, 694, had this to say:

"But the present statutory rule is that only 'damages' may be recovered. These have been defined by this Court as 'compensation for the pecuniary loss he (the patentee) has suffered from the infringement, without regard to the question whether the defendant has gained or lost by his unlawful acts. *Coupe v. Royer*, 155 U.S. 565, 582. They have been said to constitute 'the difference between his pecuniary condition after the infringement, and what his condition would have been if the infringement had not occurred.' *Yale Lock Mfg. Co. v. Sargent*, 117 U.S. 536, 552. The question to be asked in determining damages is 'how much had the Patent Holder and Licensee suffered by the infringement. And that question (is) primarily: had the Infringer not infringed, what would Patent Holder-Licensee have made?' *Livesay Window Co. v. Livesay Industries, Inc.*, supra, 251 F.2d at 471, 116 USPQ at 168.

"Thus to determine the damages that may be recovered from Aro here, we must ask how much CTR suffered by Aro's infringement—how much it would have made if Aro had not infringed."

A determination of exactly how much the patent owner, in the present instance Coe, suffered by reason of Jeddelohs' infringement would involve determination of what sales Coe lost because of the infringement and what profit Coe would have made on such sales. In addition, there are other matters such as the expense to which Coe was subjected because of the infringement and Coe's losses because of the detrimental effect that Jeddelohs' infringement had on Coe's selling price of its own equipment.

Prior adjudicated cases indicate that such determinations require years to complete, at the most are only partially satisfactory, and that during such time the infringement continues causing the patent owner further damage.

This suit was commenced March 20, 1958, and has been pending almost eight years. Although the Court had appointed a master to determine damages, to avoid the prolonged accounting period and to bring this long proceeding to an end with dispatch, the parties agreed to a determination of damages by the Court under 35 U.S.C. 284 upon evidence of what would constitute a reasonable royalty.

Coe submits that the damages awarded plaintiff by the District Court are not adequate to compensate it for Jeddelohs' infringement and are less than a reasonable royalty, contrary to the above statute. The award is in conflict with the great weight of the evidence, and there is no substantial evidence to support the Court's holding that \$825 per feeder is a reasonable royalty. This Court has held:

"As a general rule the primary method of assessing damages for infringement of a patent is using the claimant's established royalties as a measure of those damages." *U.S. National Bank v. Fabri-Valve Co. of America*, 235 F.2d 565, 110 USPQ 77 (1956).

The Court went on to say:

"It occurs to this court that there ought to be a very good reason to depart from the established royalty of five per cent, which is *prima facie* the ordinary, correct measure."

The evidence shows and the Court found plaintiff had granted four licenses under the patent prior to defendants' infringement. In 1956 Moore Dry Kiln Company was granted a license requiring the licensee to pay as a royalty an amount equal to five per cent of Coe's selling price of its Model 48 machines built under the patent. At that time the price of plaintiff's feeder was \$18,750.00 and has never since been less. In accordance with the terms of the agreement, Moore manufactured and sold three feeders under its license and paid Coe a royalty of \$937.50 per feeder (Tr. Vol. III 45).

In 1956 plaintiff also granted American Manufacturing Company of Tacoma, Washington, three separate licenses for individual feeder installations made by American. Under the terms of such licenses American paid Coe a royalty of \$1,000.00 for each of the three licensed feeder installations.

In spite of this evidence of four separate licenses to the only other then existing feeder manufacturers the

court erroneously concluded that "the circumstances and number of licenses granted under Parker patent, No. 2,649,182, do not indicate a general acquiescence in the reasonableness of the royalties paid and there is no established royalty rate under Parker patent, Re. 24,638." (Finding of Facts LVII, Tr. Vol. III 46).

Plaintiff also introduced as evidence of a proper royalty on comparably priced material handling apparatus, a license agreement covering a plasterboard stacker which it had entered into with National Gypsum Company and under which Coe was obligated to pay a royalty of \$1,000.00 for each stacker it manufactured and sold, the selling price of which stackers was \$17,000. (PX 70, Tr. Vol. IV 171).

Plaintiff also introduced evidence of a license agreement which it had entered into requiring it to pay royalties under a patent covering a trimmer for plywood veneer. Mr. Frank W. Milburn, Jr., president of plaintiff, testified that Coe paid a royalty of \$1,000 per machine which sold for \$18,500 (Tr. Vol. IV 168).

In addition, Ford E. Smith, a patent attorney practicing in Seattle, Washington, and admitted as an expert in patent and royalty matters, testified that in his opinion "the royalty (payable to Coe) ought to be somewhere in the neighborhood of \$1,200.00 per machine —at least \$1,000 and upward to \$1,200." (Tr. Vol. IV 188).

The licenses granted by plaintiff to Moore and to American and the other evidence and testimony clearly establish that there was an established royalty of from

\$937.50 to \$1,000 per feeder and that a reasonable royalty would be no less than \$937.50 per infringing machine. More persuasively the royalty ought to be a minimum of \$1,200 for certainly an infringer should not receive a more favorable rate than a voluntary licensee.

The views of Judge Leahy in *Hartford National Bank v. E. P. Drew & Co., Inc.*, 188 F. Supp. 353, 126 USPQ 487 (D.C. Del., 1960) aff'd. 290 F.2d 589 are pertinent:

“One measure of damages in infringement cases is on an established royalty basis which is the royalty paid by others in an industry and which indicates a general acquiescence in the value of the invention. In contrast, if a reasonable royalty base is applied, this represents the amount one would pay for the use of the patent as a business proposition, after evaluating the novelty of the invention, its utility and advantages. Faulkner v. Gibbs, 9 Cir., 199 F.2d 635, 95 USPQ 400. A reasonable royalty is often higher than an established royalty for the latter is usually based upon agreements negotiated before the patented invention is broadly recognized and before the patent stands the test of judicial scrutiny. The lowest return for a measure of damages would be on the basis of an established royalty.” (Emphasis added)

Additional facts to be considered in determining Coe's damages is that there is a limited market for veneer feeders and that the market has been substantially saturated as of today. There are approximately 500 veneer driers capable of utilizing feeders of the type with which we are concerned here (Tr. Vol. IV 174). As of

August 11, 1965, Coe has sold 225 feeders and the defendants 178. Other manufacturers in the meantime have sold about 50 which leaves a very limited available market.

At the hearing on the question of damages, defendants produced as a witness Mr. Harold R. Evans, Director of the Plywood Research Foundation, who testified that in his opinion a reasonable royalty would be in the area of three per cent of the infringers' sale price (Tr. Vol. IV 122). However, this witness admitted that he had negotiated a license requiring payment of a ten per cent royalty on apparatus for feeding plywood into a sander. Under the circumstances, it would not appear that his opinion is entitled to much weight.

In addition, defendants called Mr. John Graybeal, a patent attorney in Seattle, who testified that he thought a reasonable royalty rate would be two and one half per cent based on the defendants' sale price (Tr. Vol. IV 237). Mr. Graybeal gave this opinion even though he admitted that he had seen fit to negotiate on behalf of a client a license agreement requiring the licensee to pay a five per cent royalty on lumber sorting apparatus which was still in the experimental stage (Tr. Vol. IV, 77-79) and which was not even patented (Tr. Vol. IV, 88).

It would seem clear from the present record that a reasonable royalty for use of the invention by defendants would be from \$1,000.00 to \$1,200.00 for each infringing machine, and the District Court should be instructed to modify its judgment by awarding the roy-

from the patent owner that it intended to insist upon its rights, deliberately continued to make use of the invention after the issue of the patent, and took the risk, now resolved against it by the decisions of the courts, that the patent might be declared valid. Manifestly this infringing use was a wrong from which the tortfeasor should not be allowed to profit by being placed in a better position than the manufacturers who respected the owner's rights and paid for licenses under the patent. We cannot accord to a patent infringer the privilege of using a patent, while unsuccessfully challenging its validity in the courts, and exempt him from the burden of paying the recognized price for his delay in meeting his obligations.

"The decree of the District Court will therefore be affirmed in all respects, (including its disposition costs) except as to the interest period. Interest on damages should be calculated from the dates upon which royalties should have been paid after June 19, 1925 (date of plaintiff's notice of infringement to defendant). The costs in this court will be divided and the case remanded to the District Court for further proceedings."

Interest in accordance with the *Swan* decision was granted on an award of a reasonable royalty from the end of each yearly period for which royalties should have been due, the royalties being established on the yearly trade in that case. In this case American and Moore paid within thirty days of each sale.

As in the *Swan* case "special circumstances" exist here:

1. Plaintiff's feeder was the inspiration for defendant's feeder.
2. Defendants were notified promptly of their infringement but *deliberately continued to make use of the invention.*
3. Defendants entered a new field to them pioneered and opened up for them by plaintiff.
4. Defendants persisted in the infringement even after the opinion of the Court of Appeals indicating likelihood of infringement in that Court's view.
5. Defendants' own expert, Schulein, indicated in his opinion the patent in suit was valid.
6. Defendants' infringing activities have undoubtedly deprived plaintiff of sales in what is a limited market.
7. Defendants' activities in resisting the patent encouraged others (Moore & Prentice) to enter the field further limiting plaintiff's sales and profits.

Judge Learned Hand thought it equitable to require interest on reasonable royalties to be paid from the date upon which infringement occurred and so fixed interest in *Cincinnati Car Co. v. New York Rapid Transit Corporation*, 66 F.2d 592 (C.C.A. 2, 1933). His language is as follows:

"It seems to us that a royalty of \$100 for each articulation is the utmost that we can fix upon this record, and we find that amount as reasonable. This should carry interest from the date of the first in-

fringement, that being the period when presumptively it would have been paid."

In *Hartford National Bank and Trust Company, et al v. E. F. Drew & Co., Inc.*, 188 F. Supp. 347, 127 USPQ 243, (D.C. Del., 1960), aff'd. 290 F.2d 589, Judge Leahy expressly granted interest from the end of each calendar year as follows:

"Defendant's proposal as to the interest award is rejected. Plaintiff's is accepted, i.e., interest will be allowed on the main award of damages at a rate to be discussed, infra, from the end of each calendar year in which defendant's sales were made, as part of the general damages for defendant's infringement of plaintiff's patent. While defendant argues the circumstances of this case are such there should be a refusal to award any interest, I do not pause to discuss the allowance of interest in the light of the infringement that has occurred in the instant case as viewed by this Court and the Court of Appeals under the circumstances of defendant's tortious conduct. The award of interest here, is, however, not a punitive device. Allowed interest in this case represents damages for delay in payment and compensation for use of plaintiff's money that should have been included in withheld annual royalty statements which, of course, were never rendered by the infringer. In short, it is moratory interest and not contract or punitive interest."

Other decisions awarding interest for damages from the date of infringement include:

National Brake & Electric Co. v. Christensen, 38 F.2d 721, 723 (C.C.A. 7, 1930).

Munising Paper Co., Ltd. v. American Sulphite

Pulp Co., 228 F. 700, 708 (C.C.A. 6, 1915).
B. F. Goodrich Co. v. Consolidated Rubber Tire Co., 251 F. 617, 624 (C.C.A. 7, 1918).

**Defendants' Infringement was Wilful and Plaintiff
Should Be Awarded Exemplary Damages
and Attorney's Fees.**

Defendants' infringement was a wilful act and plaintiff is entitled to exemplary damages and reasonable attorneys' fees as provided in 35 U.S.C. 284 and 35 U.S.C. 285.

The defendants designed and manufactured their first veneer feeder after plaintiff had introduced and established its feeder into the industry at great expense. Defendants admitted they arrived at their design only after observing the operation of plaintiff's apparatus and the apparatus of plaintiff's licensee, Moore Dry Kiln Co. Defendants made no effort to determine whether there were any patents covering the feeders being manufactured by plaintiff and Moore, and continued their manufacture after being advised by plaintiff of the existence of the Parker patent immediately after the installation of their first machine. In the face of evidence that defendant intended to continue to manufacture feeders infringing the patent in suit, plaintiff filed its complaint March 20, 1958, which was one day prior to the invoice date of the sale of defendants' second infringing feeder (DX 73, Invoice No. 1314). Defendants continued with their infringing activities, and in fact continued without restraint even after this court's opinion of June 29, 1962. In the face of such activities it is difficult to reach a

conclusion other than that defendants' infringing activities were wilful and wanton justifying an increase in the damages awarded as authorized under 35 U.S.C. 284 and attorney's fees under 35 U.S.C. 285. In approving an award of exemplary damages and attorney's fees the Court of Appeals for the First Circuit in *Russell Box Co. v. Grant Paper Box Co.*, 203 F.2d 177, 183, 97 USPQ 19, 23, had this to say:

"First and foremost in emphasis is the contention that justification is lacking for an increase of actual damages by 50% and an award of counsel fees. Again we do not agree.

"As already indicated, the master found that although Russell believed that it was not infringing, its belief 'was due to carelessness in ascertaining the facts, carelessness in construing claim 3 or a combination of the two.' And the District Court in its memorandum opinion said that it 'heartily' concurred in this statement. Moreover, there is ample evidence to support the master's finding specifically adopted by the court below that the defendant had failed to preserve its records and had failed to co-operate as it should at the trial of the issue of damages. These findings cannot successfully be attacked as lacking support in the evidence, and they are clearly adequate to support an increase of the actual damages proved by 50% and an award of counsel fees. We would certainly be loath to disturb a conclusion of the District Court in a matter so peculiarly within its competence as an increase in damages and an award of counsel fees in cases of this sort, and viewing this litigation as a whole, we have no disposition to do so here. Indeed,

we feel the increase in the damages and the award of counsel fees are wholly justified."

The finding of the trial court that defendants' infringement was not wilful was clearly erroneous is not supported by the evidence and should be reversed by this court.

CONCLUSION

Claims 3, 5 and 7 are infringed.

A reasonable royalty for use of the Parker invention is not less than \$1,200.00 for each infringing apparatus.

Interest should be allowed from the date of each sale of an infringing apparatus..

Plaintiff is entitled to exemplary damages and attorneys' fees.

Respectfully submitted,

BUCKHORN, BLORE, KLARQUIST &
SPARKMAN,
KENNETH S. KLARQUIST,
KRAUSE, LINDSAY & NAHSTOLL,
GUNTHER F. KRAUSE,
HOFFMAN AND YOUNT,
JAMES T. HOFFMAN,
Attorneys for Appellant and
Cross Appellee.

Ex. No.	Identified	Offered	Received	Rejected
---------	------------	---------	----------	----------

Defendants' Exhibits

101-124,
incl., Pretrial Order Tr. Vol. I 162 Tr. Vol. I 162

125	Tr. Vol. I 153	"	153	Tr. Vol. I 253
126	" 153	"	153	" 253
127	" 153	"	153	" 253
128	" 153	"	153	" 253
129	" 149	"	149	"
130	" 148	"	148	" 148
131	" 148	"	148	" 148
132	" 140	"	140	" 140
133	" 140	"	140	" 140
134	" 140	"	140	" 140
135	" 162	"	162	" 163
136	" 162	"	162	" 163
137	" 162	"	162	" 163
138	" 162	"	162	" 163
139	" 162	"	162	" 163
140	" 162	"	162	" 163
141	" 140	"	140	" 140, 254
142	" 254	"	254	" 256
143	" 276	"	276	" 276
144	(Received P332 of Reporter's Transcript)			
150				Tr. Vol. IV 169
151	Tr. Vol. IV 212	Tr. Vol. IV 213	"	213
152-				
201	" 255	"	255	" 255
292-				
300	" 255	"	255	" 256
301	" 256	"	256	" 256
302	" 256	"	256	" 256





